### II. Some undescribed Butterflies from Dutch New Guinea. By Sir George H. Kenrick, F.E.S.

[Read October 19th, 1910.]

#### PLATES III-VI.

I HAVE already described some butterflies of the genus *Delias* from New Guinea, and I now add descriptions of three more from the Arfak mountains in the north of the Island.

I also describe one species of *Ornithoptera*, which may possibly be a local form of *O. chimaera*, but as my collector did not meet with any intermediate forms between it and the type in any part of the country visited by him, I am

inclined to consider it as a good species.

It appears that Mr. C. B. Pratt regarded the female of O. tithonus as the female of O. chimaera at first, not meeting with the male of O. tithonus for some time. When he afterwards found O. tithonus 3 in company with this female, he began to suspect his error, and he subsequently found the true female of O. chimaera.

I have accordingly figured both sexes of both insects.

Writing of O. tithonus he says, "The day after we arrived, we each took one specimen of the male—one fortunately being perfect. Soon after we noticed a tree overhanging a steep precipice, with a sheer drop of 500 ft. to the river below.

"Flying round and round this tree were many males and females, more of the former than the latter. We offered the natives very good payment if they would go up with a net, but the tree was of a soft kind of wood, and being in such a dangerous position we could not persuade them to do so. We ourselves guarded the ridge every day, but the males never once left the tree, so after some time we had the tree cut down, thinking that then the males would disperse and seek other flowering trees, but after the tree had fallen we never saw another male."

The first specimen of *O. rothschildi*, a male, was brought to Mr. Pratt by a native, who said that he had taken it on TRANS. ENT. SOC. LOND. 1911.—PART I. (MAY)

Mount Koberai, at an elevation of about 8000 ft., but others were subsequently taken at 6000 ft., or even lower.

# Ornithoptera rothschildi, n. sp.

(Plate V, ♂, VI, ♀.)

Male: Of the general type of O. priamus, but fore-wing narrower and hind-wing more oval. Upper-side: fore-wing black, with scattered green scales distributed in long ill-defined patches. Three of these are above the subcostal nervure between the end of the cell and the apex. Three are below the cell and between nervures 1 and 2, 2 and 3, and 3 and 4, but they do not reach the termen. There is also a narrow band along the inner margin. Hind-wing black; the disc covered by a large patch of gold, terminating in a series of points between the nervures, which are black. Across this patch of gold extends a tapering green band in which are 5 ill-defined black spots. Fold black. The under-side in both wings similar to the upper-side, but the green is more golden and better defined in patches and spots in the fore-wing. Exp. 154 m-m.

Female: Resembles the same sex in O. priamus, paradisea, and tithonus, but may be distinguished from all three by the following characters—

- 1. The abdomen, which is hairy all over and heavily ringed with black, especially above.
  - 2. The absence of white markings in the cell of the fore-wing.
- 3. The presence of 7 black spots on the hind-wing instead of 6 as in *tithonus*, the seventh being nearer the costa.
- 4. The under-side of the hind-wing being much less white than in any of the others. In the hind-wing the black patch at the base entirely covers the cell itself, but on either side it does not extend much beyond the middle of the cell. Exp. 190 mm.

Dr. K. Jordan, who has kindly compared these insects with the specimens of O. chimaera at Tring, writes as follows—

"The chief differences in the male are as follows: in O. rothschildi the green colour at apex of fore-wing is reduced, as is also the case with the cell streak; hind angle of fore-wing more rounded off, the whole being narrower, less triangular; the black interspace between central green area and green hind-marginal streak smaller on hind-wing, which is less elongated; black margins very much broader, the black spots much nearer the cell, hardly any green at outer edge of golden area; the green area which

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extends from black abdominal margin across apex of the cell, and encloses the black spots, is not present in chimacra.

"On under-side there is only a small green streak in cell of fore-wing, and there is hardly any green beyond apex of cell between the subcostals; the hind-wing is also very

different from that of chimacra.

"Female: The fore-wing, as in male, more ovate than in O. chimaera, owing to the obliquely rounded-off hind-angle; cell without spot, whereas the three discal spots placed below cell are at least as large as in chimaera; black border to hind-wing broader than in chimaera, also differently shaped, the two posterior sections of the yellowish-grey area extended nearer to the cell than even in those chimaera which have a spot in the apex of the cell, no such spot in O. rothschildi."

# Delias africanus, n. sp. (Plate III, fig. 2.)

Head, legs, and antennae black, palpi with grey hairs. Thorax with yellow hairs below, and the usual white hairs above, which extend to the base of the abdomen and below the cell of the hind-wing. Abdomen yellowish white.

Upper-side: fore-wing sooty black, a little darker on the margins; hind-wing the same, but with an ill-defined yellowish patch extend-

ing partly over the cell.

Under-side: fore-wing sooty black, with a band of 5 irregular yellow apical spots: between the cell and the inner margin the spaces between the nervures are partly covered with white scales. Hind-wing velvety black, a curved band of sulphur yellow near the base; the greater portion of the disc is filled with an elliptical patch of pale pink suffused with orange: beyond the cell is a singular black patch resembling a negro's head and neck. Exp. 60 mm.

Arfak Mountains, January 1909.

Near to D. d'Albertisi, Oberthür, but differs in the shape and position of the black patch on the under-side of the hind-wing.

# Delias imitator, n. sp. (Plate III, fig. 3.)

Head, palpi, antennae, and legs black. Thorax black with a few white hairs above. Abdomen dark grey above, white beneath.

Upper-side: fore-wing rather pointed, and outer margin slightly

waved; ground-colour black; an oblique vellowish band extends from the middle of the inner margin towards the apex, it is interrupted at the cell, and a white apical dot continues the line; there are four white dots on the hind margin. Hind-wing yellowish white, with a broad black border extending from costa half way round the wing and then continuing as a very narrow margin; in the broad part are three white dots.

Under-side: fore-wing as above, but the oblique band is wider and the spots are more distinct; hind-wing black, with narrow white costal stripe and broad angulated transverse white band, outwardly serrated. In the black margin beyond are 6 irregular pale spots; there are also 3 yellow spots in the dark basal portion, and a thin white line following nervure 1b. Female very similar, but the wings are more rounded. Exp. 50 mm.

Arfak Mountains, January 1909.

This insect bears a singular resemblance to some of the species of the South American genus Leodonta, in which the neuration is almost the same.

## Delias elongatus, n. sp. (Plate III, fig. 4.)

Head, palpi, antennae, and legs black. Thorax black, with brown hairs below. Abdomen dark grey above, white beneath.

Upper-side: fore-wing dull black, faintly darker at end of cell; an apical and marginal row of 7 ill-defined subtriangular white spots. Hind-wing white, with black border of medium width. The base of the wing fades into dark grey, and there is an ill-defined black spot at end of cell.

Under-side: fore-wing dark grey with a whitish triangular patch from inner margin upwards; the marginal spots are well-defined and quadrate. Hind-wing white; a well-defined tapering black streak extends along the costa, followed by a white band: then follows a V-shaped black mark with apex towards the body and extending from costa nearly to the angle. There is a round black spot at the end of the cell, and a rusty ill-defined cloud covering half the basal area. Marginal band deep black. Exp. 52 mm.

Arfak Mountains, January 1909. A single male

specimen only.

This insect differs from most of the New Guinea species of Delias in having the wings longer and narrower, and resembles some of the Australian species in this respect. The marking of the under-side of the hind-wing is quite remarkable and unusual in the genus.

# Libythea hatami, n. sp. (Plate IV, fig. 2.)

Q. Head dark brown; palpi, thorax, and abdomen on the upperside dark brown, on the under-side covered with grey hairs, the legs wholly grey.

Upper-side: fore-wing of the usual shape in the genus, dark brown inclined to sooty, an oval white spot at end of cell; another spot, quadrate in form beyond this and between nervures 3 and 4, extending partly between 4 and 5; two rounded white spots nearer the apex separated by nervure 6; between these and the end of the cell is an irregular spot tapering to the costa and crossed by two dark nervures. Hind-wing slightly emarginate, dark brown; a transverse white band occupies the disc, but does not reach either margin; a quadrate white spot extends from the middle of the costa to the subcostal nervure; fringes of both wings whitish.

Under-side: the ground-colour is much paler; all the spots are repeated on a larger scale, and in addition the surface is marbled with a number of whitish scales. Exp. 44 mm.

Mountains of Hatam, 3000 ft.

### EXPLANATION OF PLATES III-VI.

#### PLATE III.

Fig. 1. Ornithoptera tithonus &. p. 16.

" 2. Delias africanus, n. sp. p. 18.

" 3. D. imitator, n. sp. p. 18.

" 4. D. elongatus, n. sp. p. 19.

#### PLATE IV.

Fig. 1. Ornithoptera tithonus  $\circ$ . p. 16. , 2. Libythea hatami, n. sp. p. 20.

### PLATE V.

Ornithoptera rothschildi, n. sp. 3. p. 17.

### PLATE VI.

Ornithoptera rothschildi, n. sp. ♀. p. 17.